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Docket 83241AJA  
Customer No. 01333

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of

Ronald S. Cok, et al

DISAGGREGATED FLAT PANEL  
DISPLAY

Serial No. 10/003,832

Filed 01 November 2001

Group Art Unit: 2674

Examiner: Duc Q. Dinh

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22313-1450.

Deidra L. Mack  
Deidra Mack

July 27, 2005  
Date

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPEAL BRIEF TRANSMITTAL**

Enclosed herewith is Appellants' Appeal Brief for the above-identified  
application.

The Assistant Commissioner is hereby authorized to charge the Appeal  
Brief filing fee to Deposit Account 05-0225. A duplicate copy of this letter is  
enclosed.

Respectfully submitted,

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Sir:

**APPEAL BRIEF PURSUANT TO 37 C.F.R. 1.192**

Applicants hereby appeal to the Board of Patent Appeals and  
Interferences from the Examiner's Final Rejection of claims 1-7, 9-16 and 18 which  
was contained in the Office Action mailed January 25, 2005.

A timely Notice of Appeal was mailed with certificate of first-class  
mailing May 25, 2005 (with one-month extension of time), and received at the PTO  
OIPE May 27, 2005.

Respectfully submitted,

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### **Real Party In Interest**

The Eastman Kodak Company is the assignee and real party in interest.

### **Related Appeals And Interferences**

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

### **Status Of The Claims**

Claims 1-7, 9-16 and 18 are pending in the application.

Claims 1-7, 9-16 and 18 stand rejected under 35 USC § 103.

Claims 1-7, 9-16 and 18 are being appealed.

Appendix I provides a clean, double spaced copy of the claims on appeal.

### **Status Of Amendments**

No amendment has been filed after the Final Rejection dated January 25, 2005.

### **Summary Of Claimed Subject Matter**

#### **Independent Claim 1:**

As set forth in independent claim 1, the claimed invention is directed towards a disaggregated flat-panel color display (10) comprising: a) a frame (12); b) an OLED display screen (14) mounted in the frame; c) an electrical/mechanical interface (16, 18, 20) on the frame for releasably attaching the frame to any one of a plurality of different electronic devices (e.g., PDA 24, digital camera 26, cell phone 28, palm-sized computer 29); and d) a power supply (46) and memory (48) to maintain an image on the display when detached from the electronic devices. As described in the specification (page 2, lines 21-22), a disaggregated display refers to a

display that is detachable from and can be used on a variety of different electronic devices. By providing a display that is compatible with a variety of portable electronic devices, the invention advantageously avoids the expense of requiring redundant displays for each device. By incorporating a power supply and a memory, the disaggregated display of the present invention further advantageously may be used to display images stored in the memory even when the display is not connected to the different electronic devices it is designed for use with (page 4, lines 12-20).

Independent Claim 2:

As set forth in independent claim 2, the claimed invention is directed towards a system of electronic devices (Fig. 3), comprising: a) a plurality of different electronic devices (e.g., PDA 24, digital camera 26, cell phone 28, palm-sized computer 29), each having an electrical/mechanical interface (31); and b) a disaggregated flat panel color display (10) having, i) a frame (12); ii) an OLED display screen (14) mounted in the frame; iii) an electrical/mechanical interface (16, 18, 20) on the frame for releasably attaching the frame to the electrical/mechanical interface of the plurality of different electronic devices; and iv) a power supply (46) and memory (48) to maintain an image on the display when detached from the electronic devices. Claim 2 thus is directed towards a system comprising a disaggregated flat panel color display having all the features of the display of claim 1, in specific combination with a variety of electronic devices wherein the electrical/mechanical interface on the frame of the display is designed to releasably attach the frame to an electrical/mechanical interface of each of the plurality of different electronic devices. The system of Claim 2 thus provides all the advantages associated with the display of claim 1, advantageously avoiding the expense of requiring redundant displays for each of the plurality of different electronic devices and enabling the display to be used to display images stored in the memory even when the display is not connected to one of the plurality of different electronic devices.

## **Grounds Of Rejection To Be Reviewed On Appeal**

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Claims 1-6, 9-11, 13-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2002/0193141 A1) over Boehme et al. (U. S. Patent No. 6,512,670) in view of Kotchick et al. (U. S. Patent No. 6,642,977).
2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu, Boehme and Kotchick and further in view of Etoh (U. S. Patent No. 5,792,289).
3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu, Boehme, Kotchick and further in view of Malloy Desormeaux (U. S. Patent No. 6,577,821).

## **Arguments**

### ***Obviousness Rejection of Claims 1-6, 9-11, 13-16, and 18 over Wu in view of Boehme et al and Kotchick et al***

In reference to claims 1 and 2, the Examiner states that Wu discloses a personal digital assistant in Fig. 2-4 comprising a Unit 2 having a display 28, connector port 26 having interface 24, a memory 27 and a charge battery 210. While acknowledging that Wu does not disclose an electrical/mechanical interface for releasably attaching the display to any one of different electronic devices, the Examiner states that Boehme discloses a display for a portable computer provided with a standardized set of electrical and physical element for the electrical interfaces and connectors of different electronic devices (col. 5, lines 10-25), and that it would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the connector and interface in the frame of Wu with a standardized set of electrical and physical element as taught by Boehme for the benefits cited in Col. 1, line 45-col. 2, line 20 of Boehme. The Examiner further states that Kotchick discloses in Fig. 8 an electronic device having a removable display module (for example, removable display modules can be used to replace a monochromatic LCD module with a full color LCD module, to replace an LCD module with another display

type such as an organic electroluminescent display (see Fig. 8, col. 17, line 15-37)), and that it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide Kotchick's teaching (i.e.: replace OLED display for the system) in the device of Wu and Boehme, to replace smaller display modules with larger display modules, to replace low resolution display modules with higher resolution display modules, to replace display modules that no longer function with working display modules, and the like (col. 17, lines 45-49). For the reasons explained below, however, it is respectfully urged that the basic combination of Wu with Boehme and Kotchick proposed by the Examiner would not have been prima facie obvious to the artisan, and even if such teachings were to be combined for the reasons proposed by the Examiner, would not result in the present claimed invention.

Arguments with respect to Independent claim 1 and dependent claims 3, 9-11, 13-16 and 18:

As discussed in the Summary of Claimed Subject Matter above, the present invention of Claim 1 is directed towards a disaggregated display that is detachable from and can be used on a variety of different electronic devices, and which includes a power supply and a memory so that the disaggregated display may be used to display images stored in the memory even when the display is not connected to the different electronic devices it is designed for use with. Wu, on the other hand, is specifically directed towards providing a specialized bracket for use with a PDA device which converts the PDA device into a functional digital camera. While the PDA device of Wu includes a power supply (210) and a memory (27) in addition to a display device (28), as PDAs are independent electronic devices designed to perform functions requiring power and memory, Wu only teaches to design the bracket 21 thereof to specifically match the PDA, not to design the display device (28) thereof (or for that matter the PDA 2 itself) for use with a variety of electronic devices.

The teachings of Boehme and Kotchick are directed towards detachable or replaceable displays for portable electronic devices. Boehme and Kotchick, however, do not teach including a power supply and memory in the detachable displays to maintain an image on the display when detached from the electronic devices. As Wu is specifically and solely directed towards converting a

PDA into a digital camera, there is simply no teaching or suggestion to modify the PDA of Wu to make it compatible with functioning as a detachable display for a variety of different portable electronic devices. While the cited advantages of Boehme and Kotchick might provide motivation to modify the display device (28) of the PDA 2 of Wu to make such display device (28) itself detachable from the PDA 2 (i.e., to allow replacement of the display device (28) in the PDA itself), there is no teaching or suggestion to modify Wu to include the interchangeability features of Boehme as to the connection between the PDA 2 and the bracket 21 of Wu as proposed by the Examiner. Accordingly, the teachings of such references, even if properly combinable, would not suggest their combination in a manner that would result in the present claimed invention so as to establish a prima facie case of obviousness. Reversal of this rejection is accordingly respectfully urged with respect to independent claim 1. The additional rejected dependent claims are believed patentable for at least the same reasons.

Arguments with respect to Independent claim 2 and dependent claims 4-6:

As discussed in the Summary of Claimed Subject Matter above, the present invention of Claim 2 is directed towards a system comprising a disaggregated flat panel color display having all the features of the display of claim 1, in specific combination with a variety of electronic devices wherein the electrical/mechanical interface on the frame of the display is designed to releasably attach the frame to an electrical/mechanical interface of each of the plurality of different electronic devices. The system of Claim 2 thus provides the advantages of avoiding the expense of requiring redundant displays for each of the plurality of different electronic devices and enabling the display to be used to display images stored in the memory even when the display is not connected to one of the plurality of different electronic devices. Wu, on the other hand, again is specifically directed towards providing a specialized bracket for use with a PDA device which converts the PDA device into a functional digital camera. While the PDA device of Wu includes a power supply (210) and a memory (27) in addition to a display device (28), as PDAs are independent electronic devices designed to perform functions requiring power and memory, Wu only teaches to design the bracket 21 thereof to specifically match the PDA, not to design the display device (28) of the PDA (or for that matter the PDA 2 itself) for use with with a



variety of electronic devices, wherein an electrical/mechanical interface on the frame of the display is designed to releasably attach the frame to an electrical/mechanical interface of each of the plurality of different electronic devices.

The teachings of Boehme and Kotchick are directed towards detachable or replaceable displays for portable electronic devices. Boehme and Kotchick, however, do not teach including a power supply and memory in the detachable displays to maintain an image on the display when detached from the electronic devices. As Wu is specifically and solely directed towards converting a PDA into a digital camera, there is simply no teaching or suggestion to modify the PDA of Wu to make it compatible with functioning as a detachable display for a variety of different portable electronic devices. While the cited advantages of Boehme and Kotchick might provide motivation to modify the display device (28) of the PDA 2 of Wu to make such display device (28) itself detachable from the PDA 2 (i.e., to allow replacement of the display device (28) in the PDA itself), there is no teaching or suggestion to modify Wu to include the interchangeability features of Boehme as to the connection between the PDA 2 and the bracket 21 of Wu as proposed by the Examiner. Further, while Boehme and Kotchick may disclose the use of detachable or replaceable displays for various portable electronic devices, there is no teaching or suggestion for the use of such displays independently from the associated electronic devices that they are detachable from. Accordingly, there is no teaching or suggestion to include power supply and memory in the detachable displays of Boehme and Kotchick. The teachings of such references, even if properly combinable, thus would not suggest their combination in a manner that would result in the present claimed invention so as to establish a prima facie case of obviousness. Reversal of this rejection is accordingly respectfully urged with respect to independent claim 2. The additional rejected dependent claims are believed patentable for at least the same reasons.

***Obviousness Rejection of Claim 12 over Wu, Boehme and Kotchick in view of Etoh***

While acknowledging that Wu, Boehme and Kotchick do not disclose a display device that is adapted to cover the controls on an electronic device when the display is attached to the electronic device, the Examiner states that Etoh discloses in

FIG. 6 a modified electronic camera with a display enlargement key 102a and a display return input key 102b on the LCD display device 102, and that it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the teaching of Etoh (i.e., provide the control of the electronic device over the display device when the display device is attached to the electronic device in the system of Wu, Boehme and Kotchick) for providing high operability to the system (see col. 1, lines 45-67, col. 2, lines 1-10).

In addition to the basic deficiencies with respect to the primary rejection based upon Wu and Boehme in view of Kotchick, the further reliance upon Etoh with respect to claim 12 is flawed as there would be no motivation to provide controls on the bracket 21 of Wu which are subsequently covered when the PDA 2 is attached, as the bracket 21 of Wu has no functionality on its own. It is only functional as a camera when employed in combination with the PDA 2 (i.e., as described in paragraph 18, camera functionality requires use of CPU 22 and memory 27 of PDA 2). Thus, having controls on the bracket 21 covered by the PDA would be useless, and not suggested by the teachings of the references as proposed to be combined by the Examiner. Reversal of this further rejection is accordingly respectfully requested.

***Obviousness Rejection of Claim 7 over Wu, Boehme and Kotchick in view of Malloy Desormeaux***

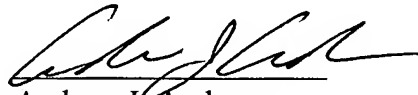
While acknowledging that Wu, Boehme and Kotchick do not disclose a radio-frequency communications interface, the Examiner states that Malloy Desormeaux suggests using a radio-frequency link (col. 38, lines 51-60), and that it would have been obvious for one of ordinary skill in the art at the time the invention was made to learn the teaching of Malloy Desormeaux (i.e.: using the radio frequency interface) in the device of Wu, Boehme and Kotchick so that users could remotely manipulate the device.

While Malloy Desormeaux includes a reference to radio frequency operation of a camera, the basic deficiencies with respect to the primary rejection based upon Wu and Boehme in view of Kotchick discussed above are clearly not overcome by such further teachings of Malloy Desormeaux. Reversal of this further rejection is accordingly respectfully requested.

## **Conclusion**

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-7, 9-16 and 18.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

## **Appendix I - Claims on Appeal**

1. A disaggregated flat-panel color display, comprising:

- a) a frame;
- b) an OLED display screen mounted in the frame;
- c) an electrical/mechanical interface on the frame for releasably attaching the frame to any one of a plurality of different electronic devices; and
- d) a power supply and memory to maintain an image on the display when detached from the electronic devices.

2. A system of electronic devices, comprising:

- a) a plurality of different electronic devices, each having an electrical/mechanical interface; and
- b) a disaggregated flat panel color display having,
  - i) a frame;
  - ii) an OLED display screen mounted in the frame;
  - iii) an electrical/mechanical interface on the frame for releasably attaching the frame to the electrical/mechanical interface of the plurality of different electronic devices; and
  - iv) a power supply and memory to maintain an image on the display when detached from the electronic devices.

3. The disaggregated flat-panel color display claimed in Claim 1, wherein the electrical/mechanical interface is compatible with the Digital Video Interface.

4. The system claimed in Claim 2, wherein the display is mechanically mounted on an electronic device to make an apparently single component.

5. The system claimed in Claim 2, wherein the display is mechanically attached to an electronic device through a cable with wires.

6. The system claimed in Claim 2, wherein the electronic devices include one or more devices selected from the group of devices comprising a digital camera, a film camera with a digital display, a PDA, a cell phone, a pager, a game, and a portable computer.

7. The disaggregated flat-panel color display claimed in Claim 1, including a wireless communications transceiver for communicating with the electronic device.

9. The disaggregated flat-panel color display device claimed in Claim 1, further comprising: a touch screen mounted over the OLED display screen for providing an interactive user interface.

10. The disaggregated flat-panel color display device claimed in Claim 9, further comprising: a power supply, a memory, and a controller with software to provide imaging review services on the display.

11. The disaggregated flat-panel color display device claimed in Claim 10, further comprising: a wireless communications interface for communicating control instructions to the electronic device.

12. The disaggregated flat-panel color display device claimed in Claim 9, wherein the display device is adapted to cover controls on the electronic device when the display is attached to the electronic device.

13. The disaggregated flat-panel color display device claimed in Claim 1 wherein the electrical interface includes a power interface.

14. The disaggregated flat-panel color display device claimed in Claim 13, wherein the display power supply is recharged from a power supply in the electronic device.

15. The disaggregated flat-panel color display device claimed in Claim 1, wherein the power supply is a battery.

16. The disaggregated flat-panel color display device claimed in Claim 15, wherein the battery is a rechargeable battery.

18. The disaggregated flat-panel color display device claimed in Claim 11, further comprising: software to provide display services for images stored in the electronic device.

NONE

**Appendix II - Evidence**

**Appendix III – Related Proceedings**

NONE